

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

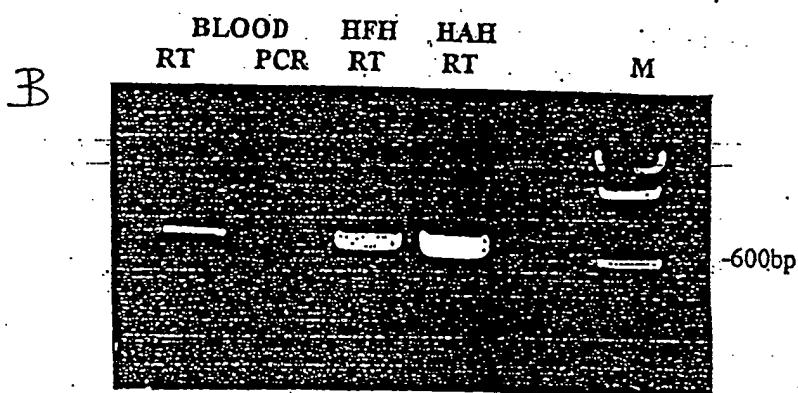
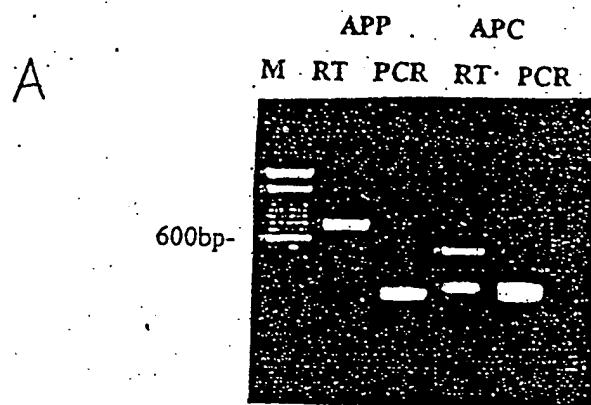


FIGURE 1

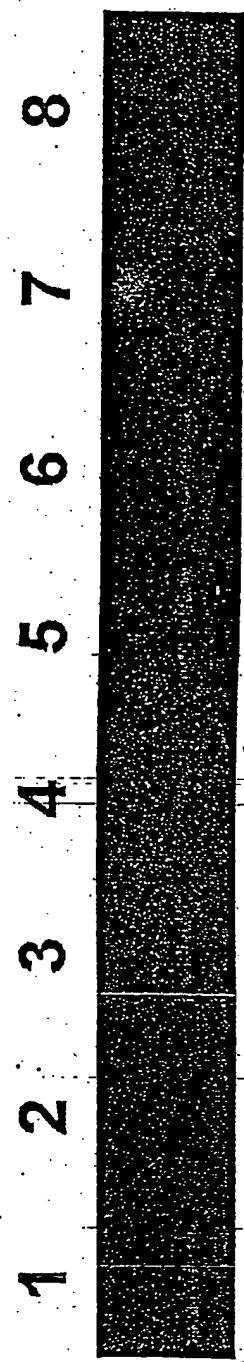


FIGURE 2

1 2 3 4

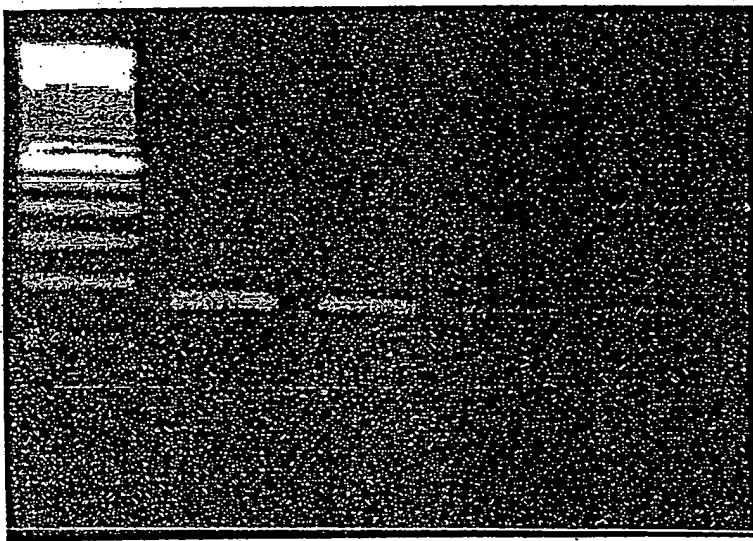
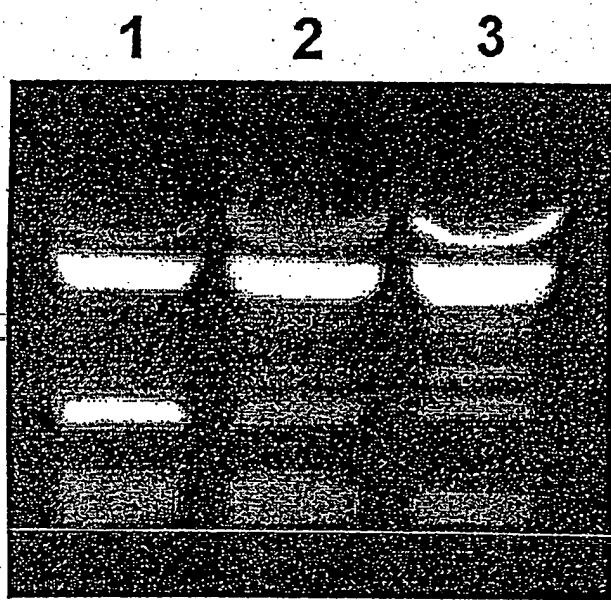


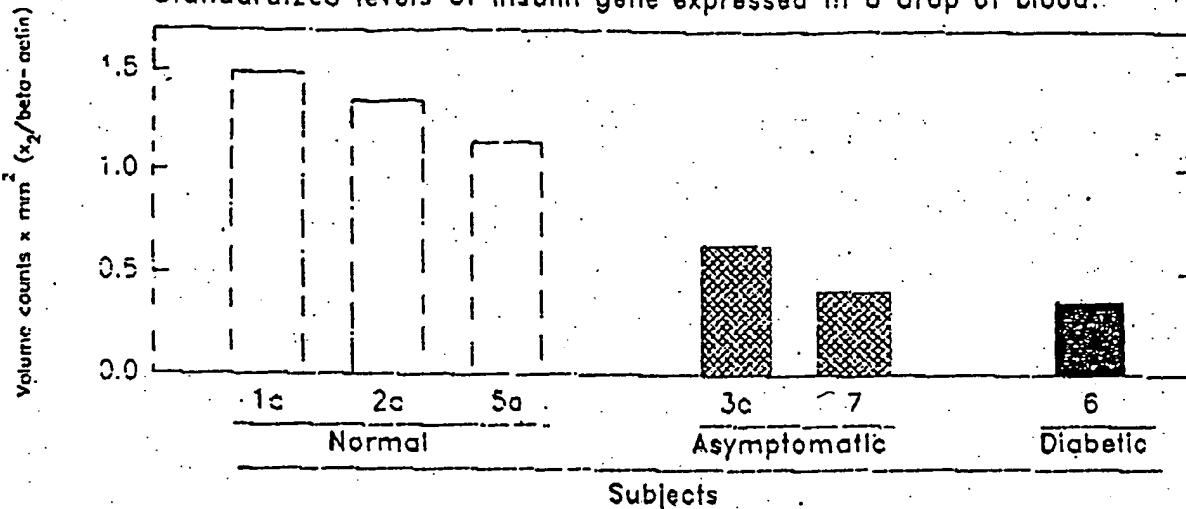
FIGURE 3



ZFP
GADH
INS

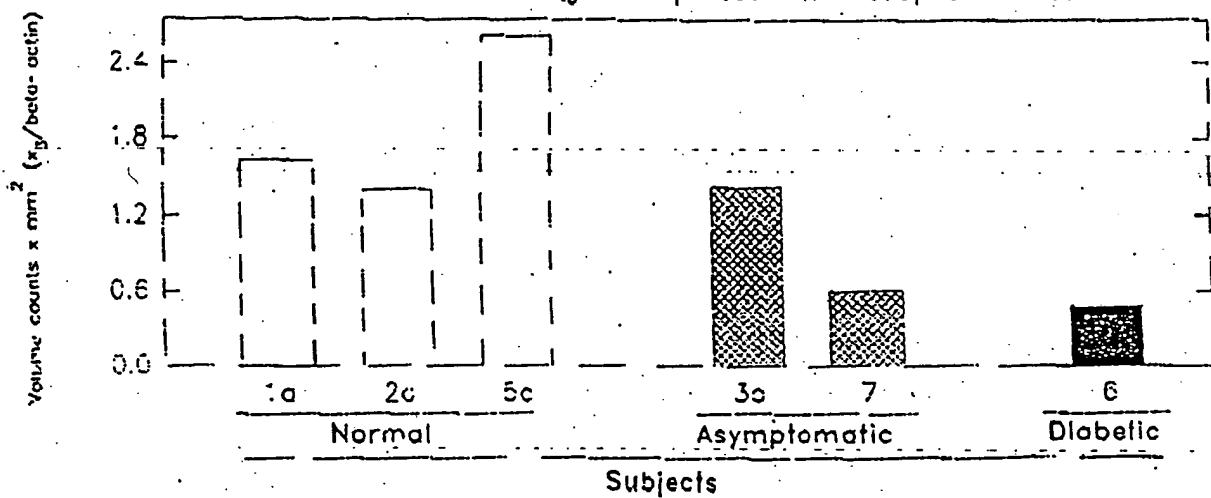
FIGURE 4

A. Standardized levels of Insulin gene expressed in a drop of blood.



B.

Standardized levels of ZFP gene expressed in a drop of blood.



C. Standardized levels of insulin gene expressed in each fractionated cell from whole blood.

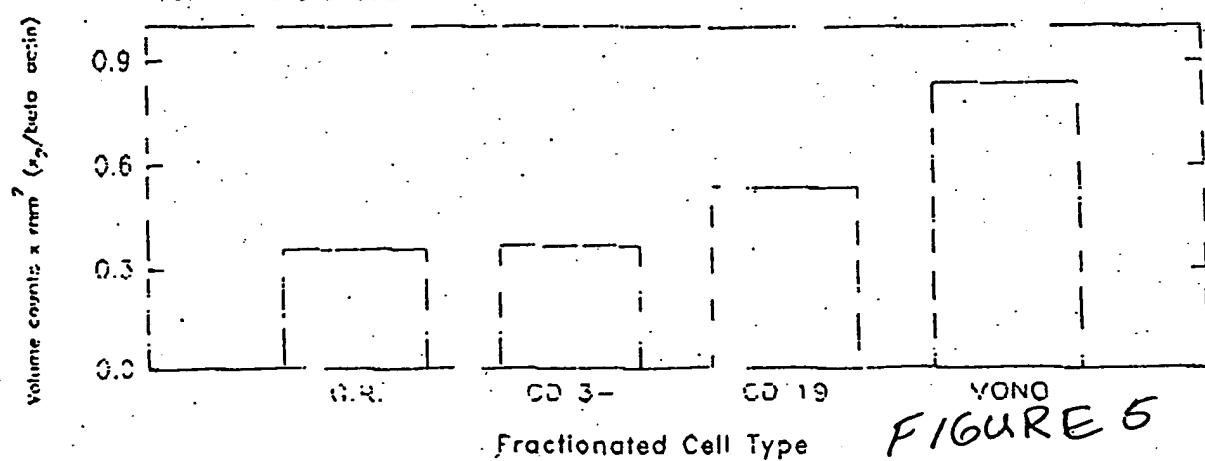
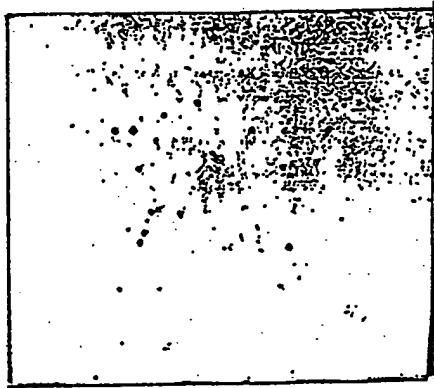


FIGURE 5

A



B

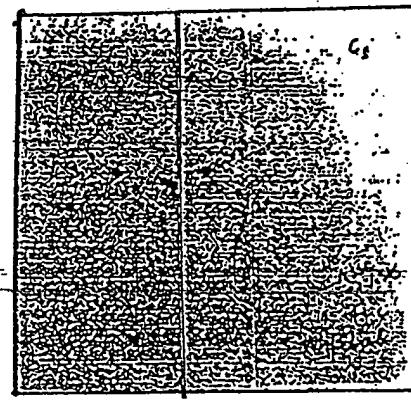
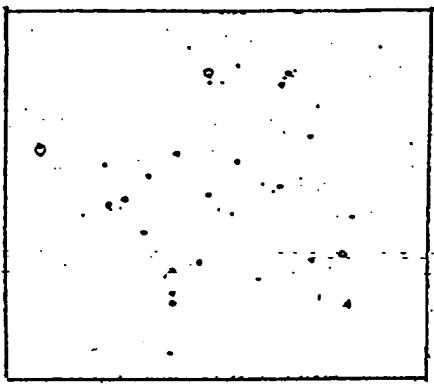
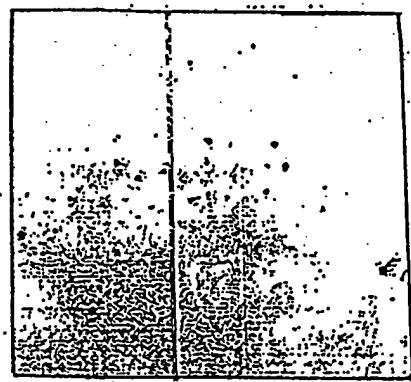


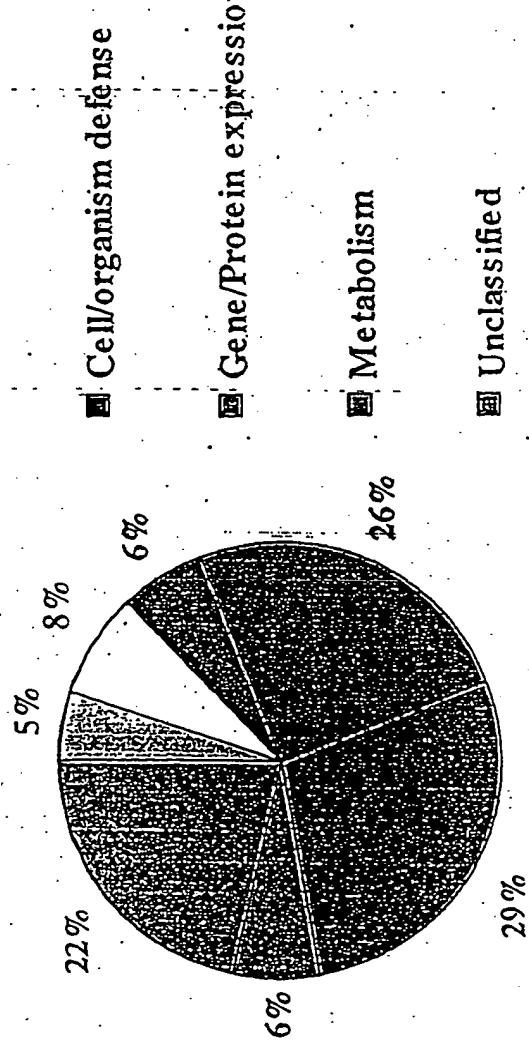
FIGURE 6

Total :13,283 ESTs
Known: 6,283
Mitochondrial: 405
Ribosome: 498
Repeat: 868
Mis. : 156
Novel: 2,718

Cell Division

Cell Signalling/Communication

Human Blood



Human Fetal Heart

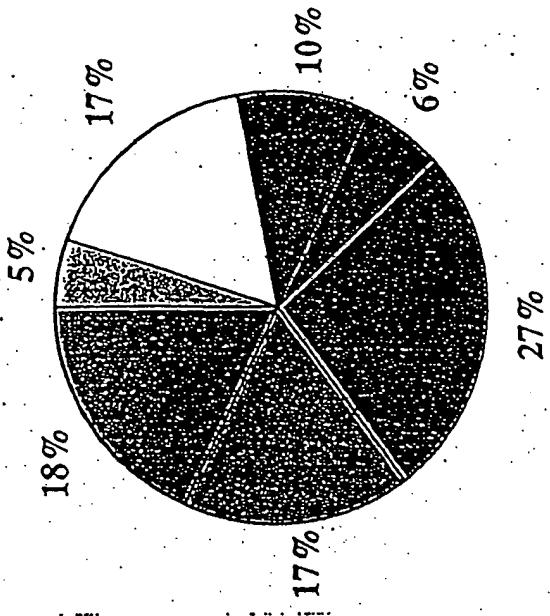
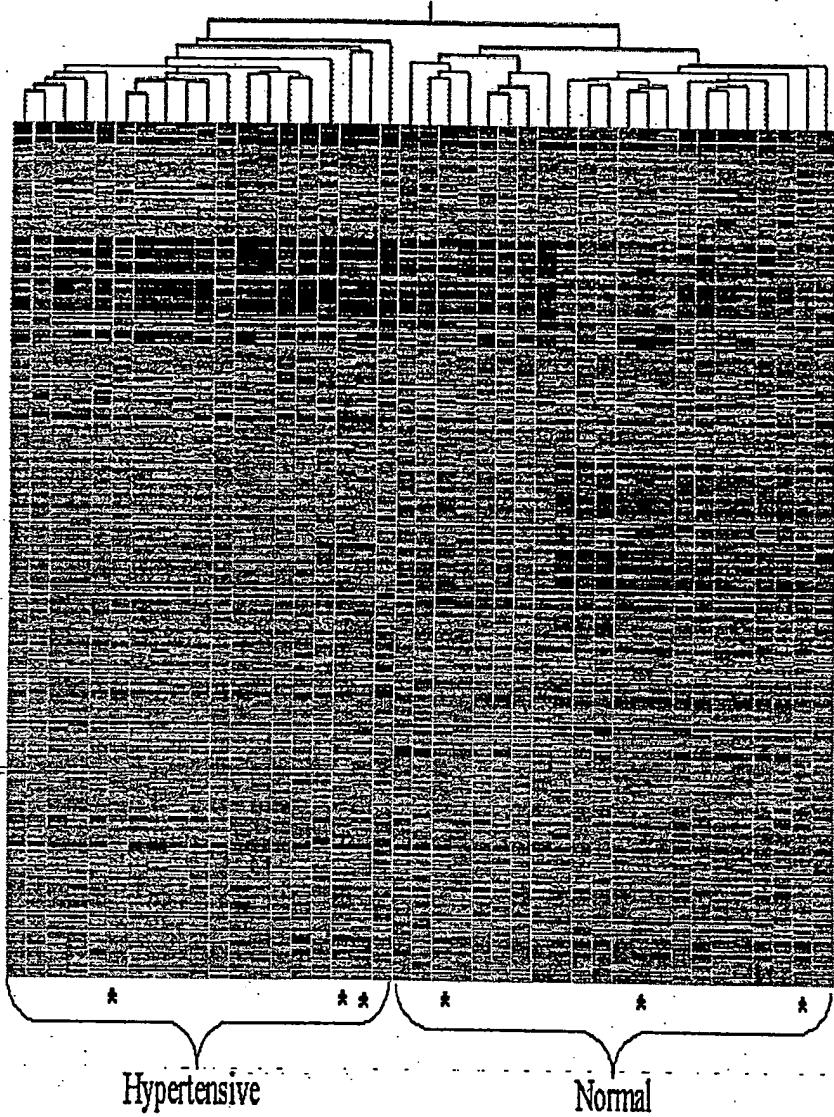


FIGURE 7

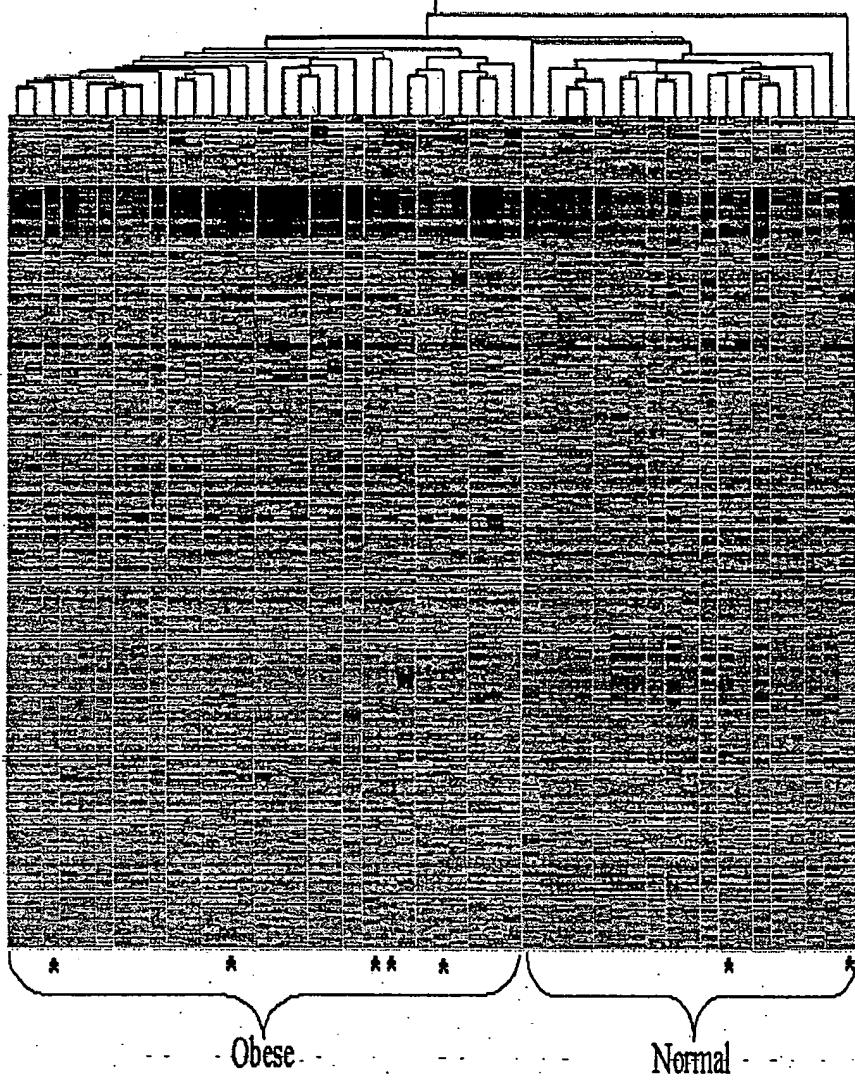
Figure 8
Hypertension



Hypertensive: 19
Normal: 22
Differentially Expressed Genes ($p < 0.05$): 861

Figure 9

Obesity



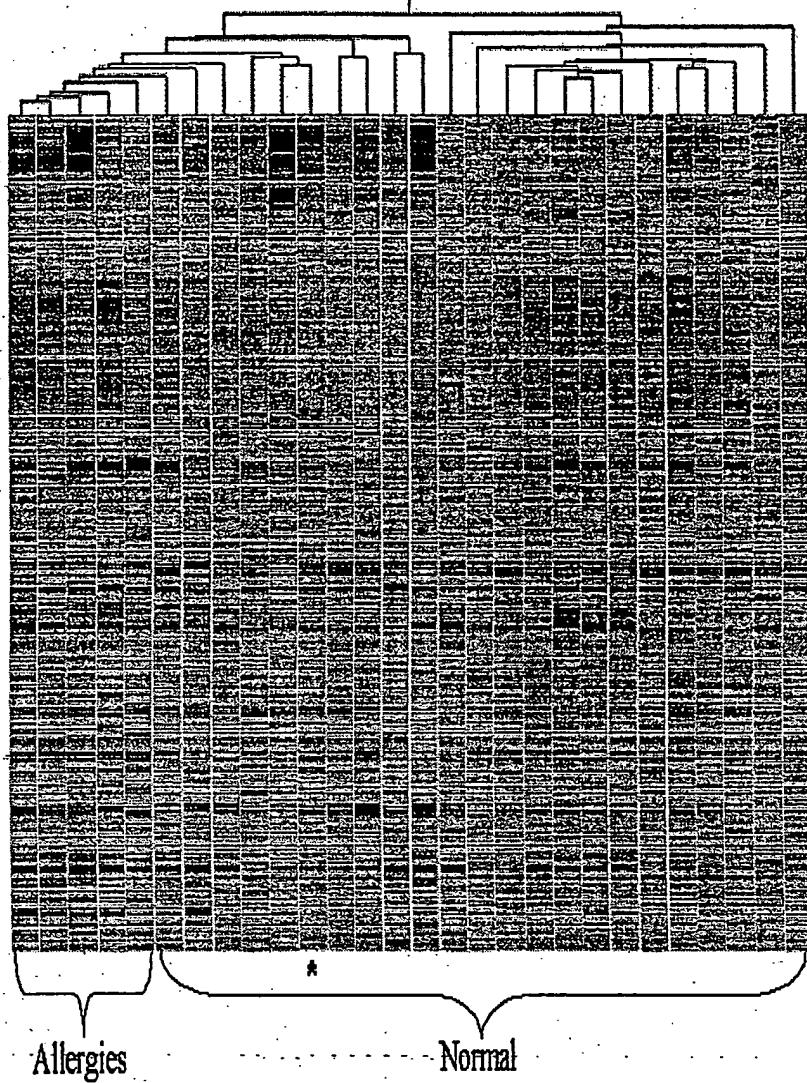
Obese: 25

Normal: 22

Differentially Expressed Genes ($p < 0.05$): 913

Figure 10

Allergies



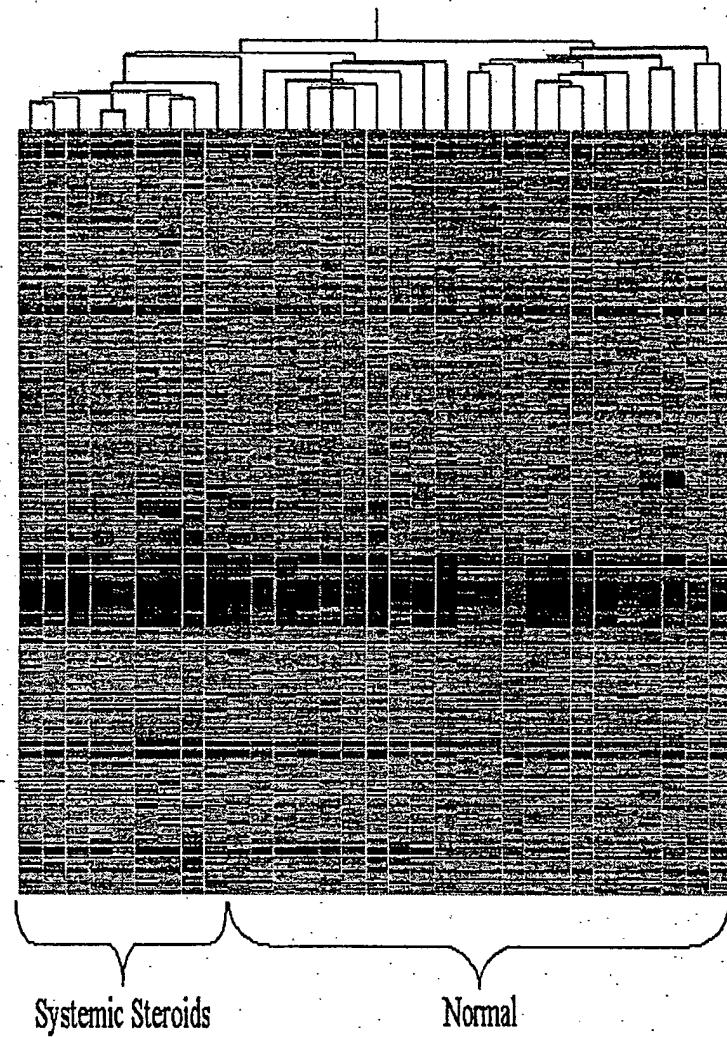
Allergies: 6

Normal: 22

Differentially Expressed Genes ($p < 0.05$): 633

Figure 11

Systemic
Steroids



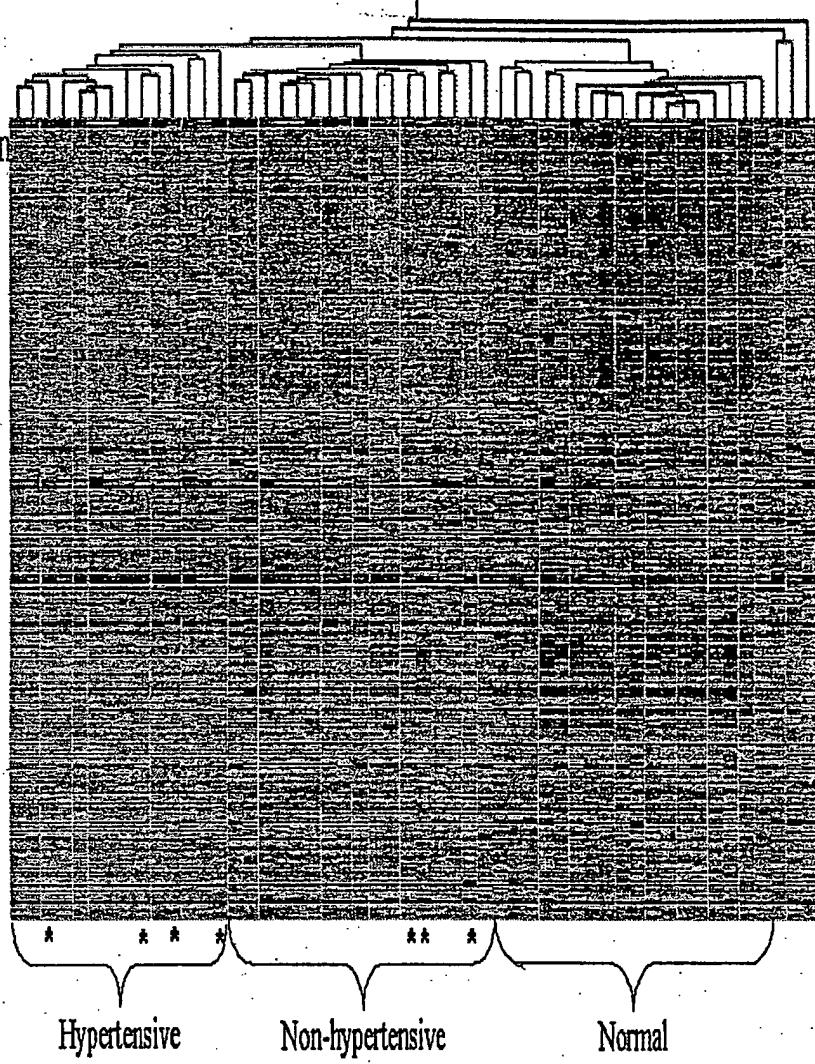
Systemic Steroids: 9

Normal: 22

Differentially Expressed Genes ($p < 0.05$): 605

Figure 12

Hypertension



Hypertensive: 10

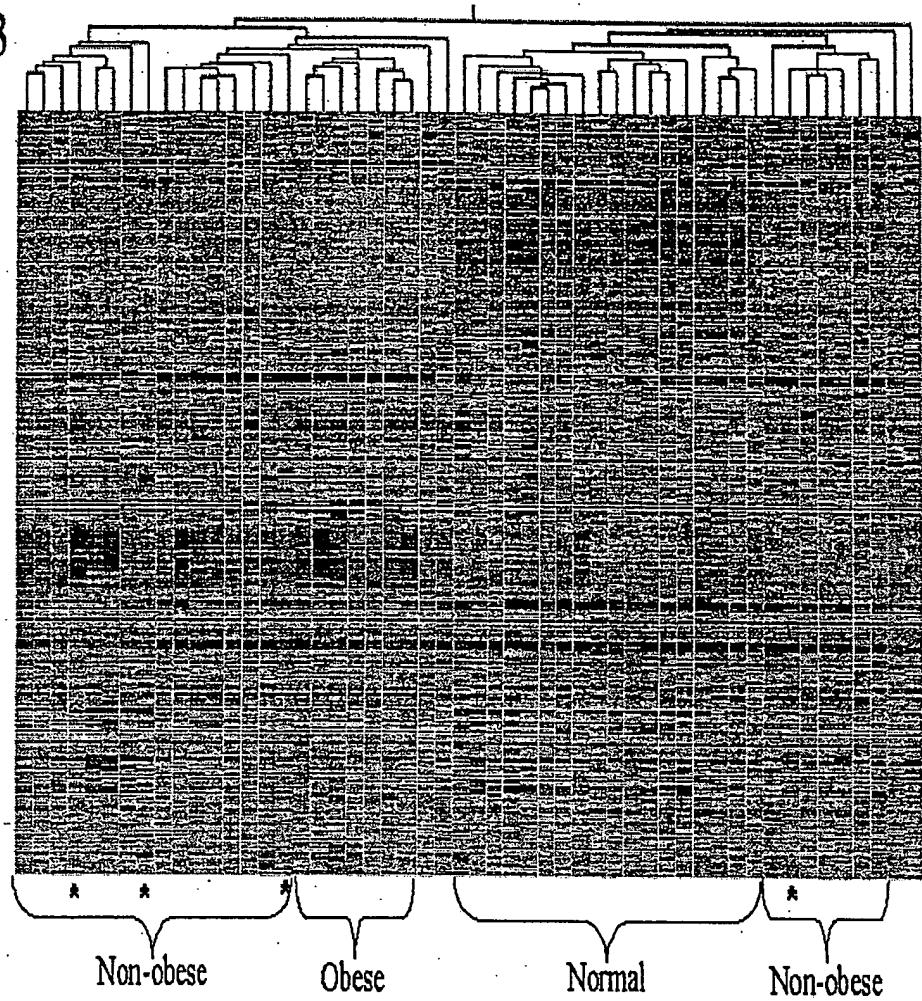
Non-hypertensive: 18

Normal: 24

Differentially Expressed Genes ($p < 0.05$): 1,993

Figure 13

Obesity



Obese: 8

Non-obese: 20

Normal: 24

Differentially Expressed Genes ($p < 0.05$): 1,147

Figure 14

Diabetes
Type 2

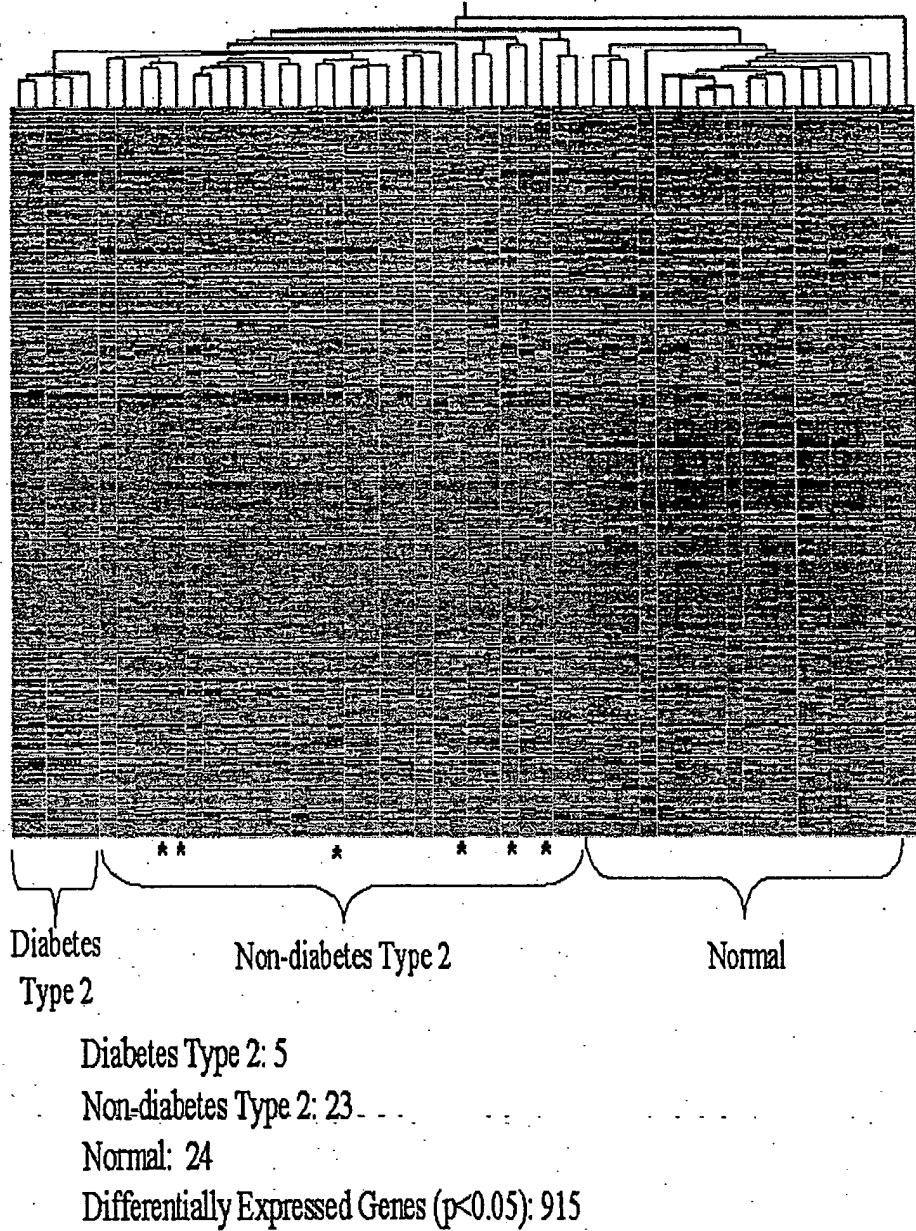


Figure 15

Hyperlipidemia

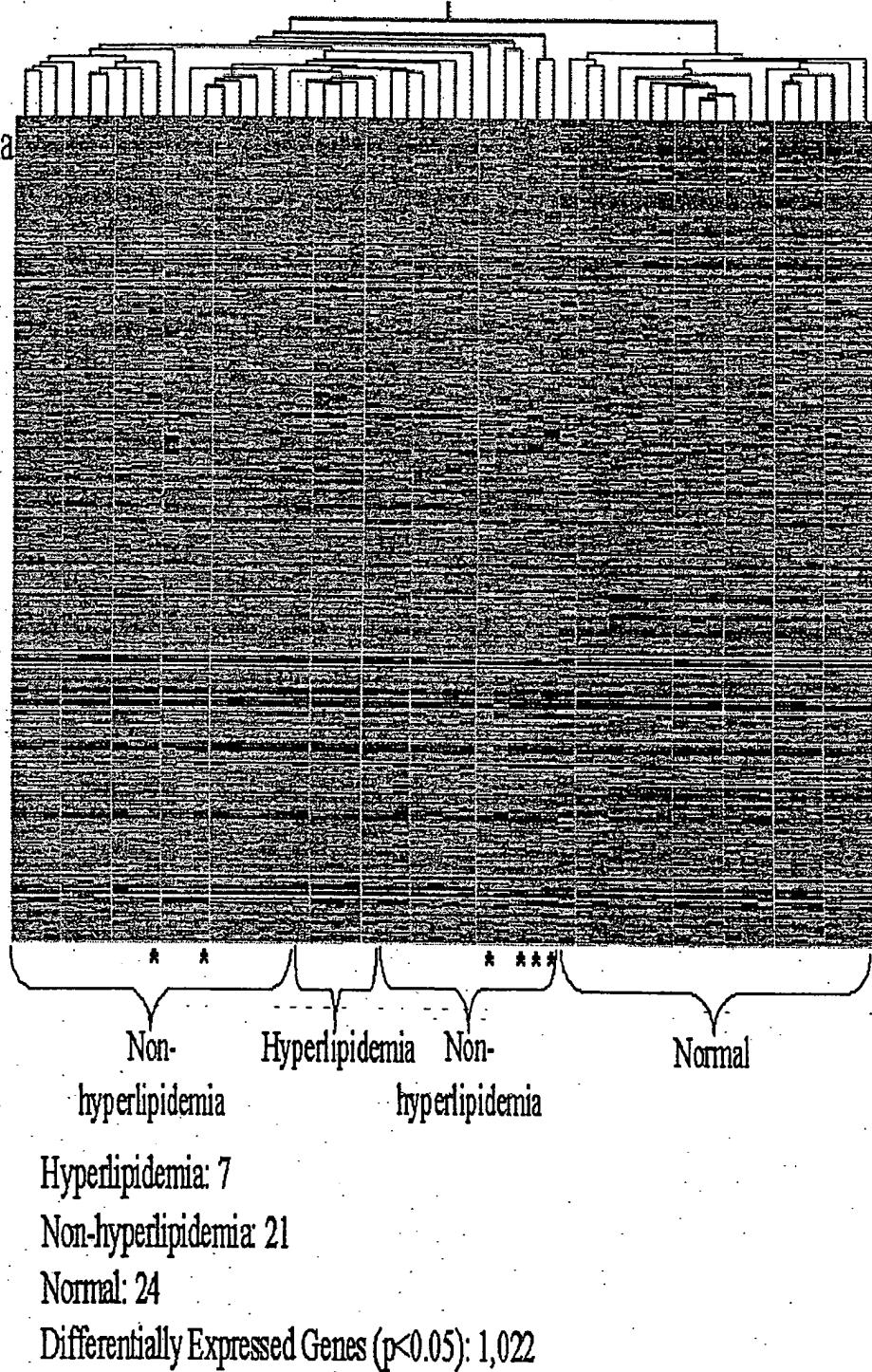
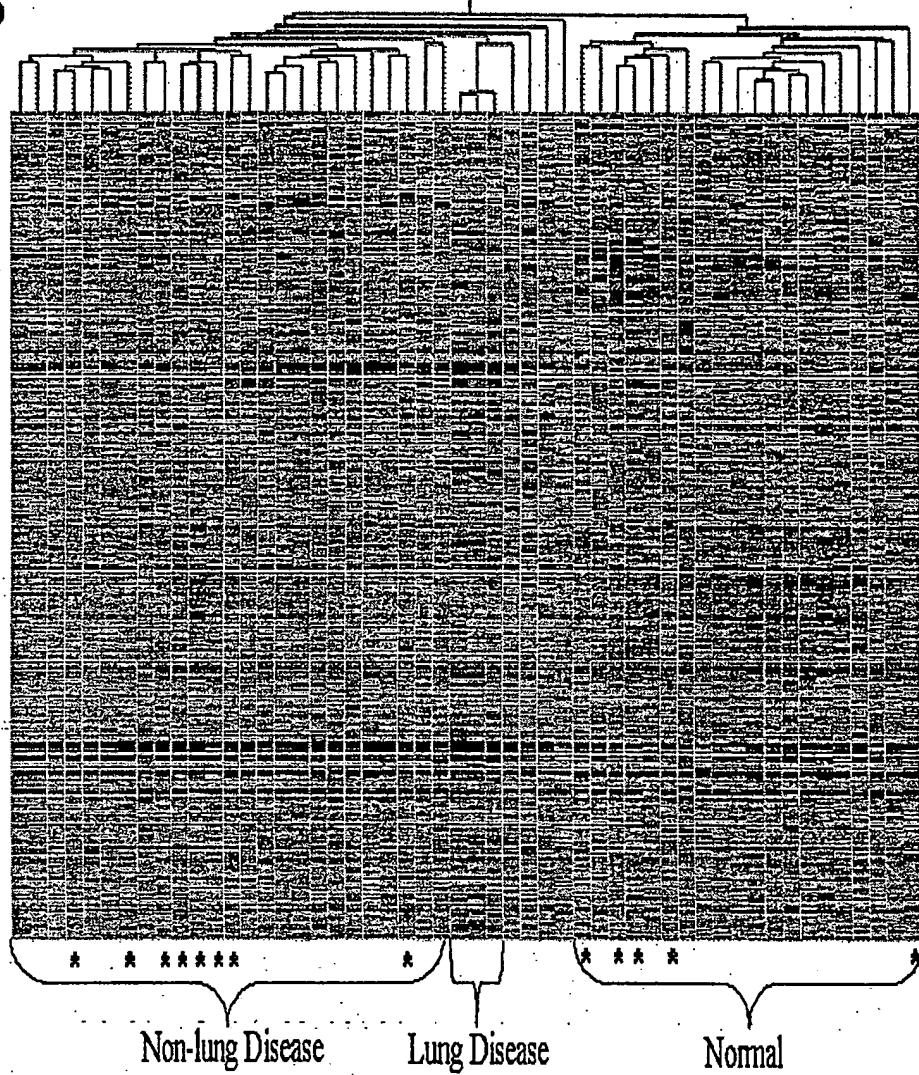


Figure 16

Lung
Disease



Lung Disease: 3

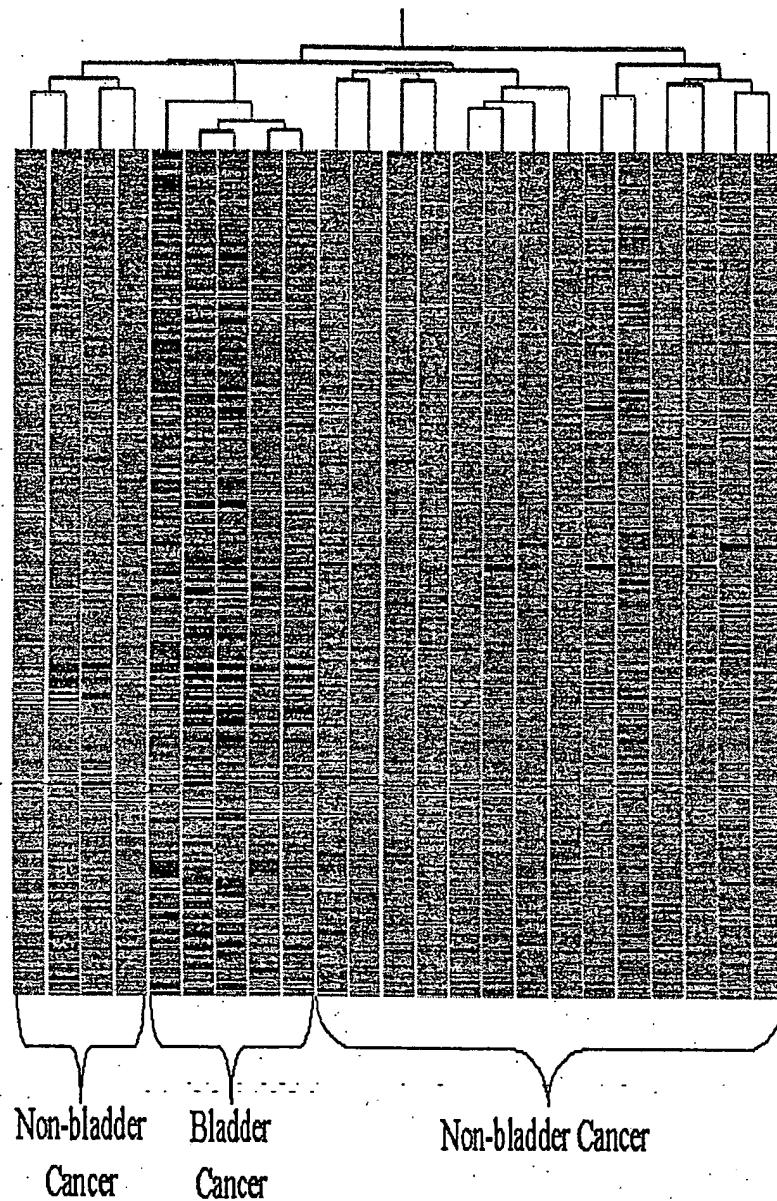
Non-lung Disease: 25

Normal: 24

Differentially Expressed Genes ($p < 0.05$): 596

Figure 17

Bladder
Cancer



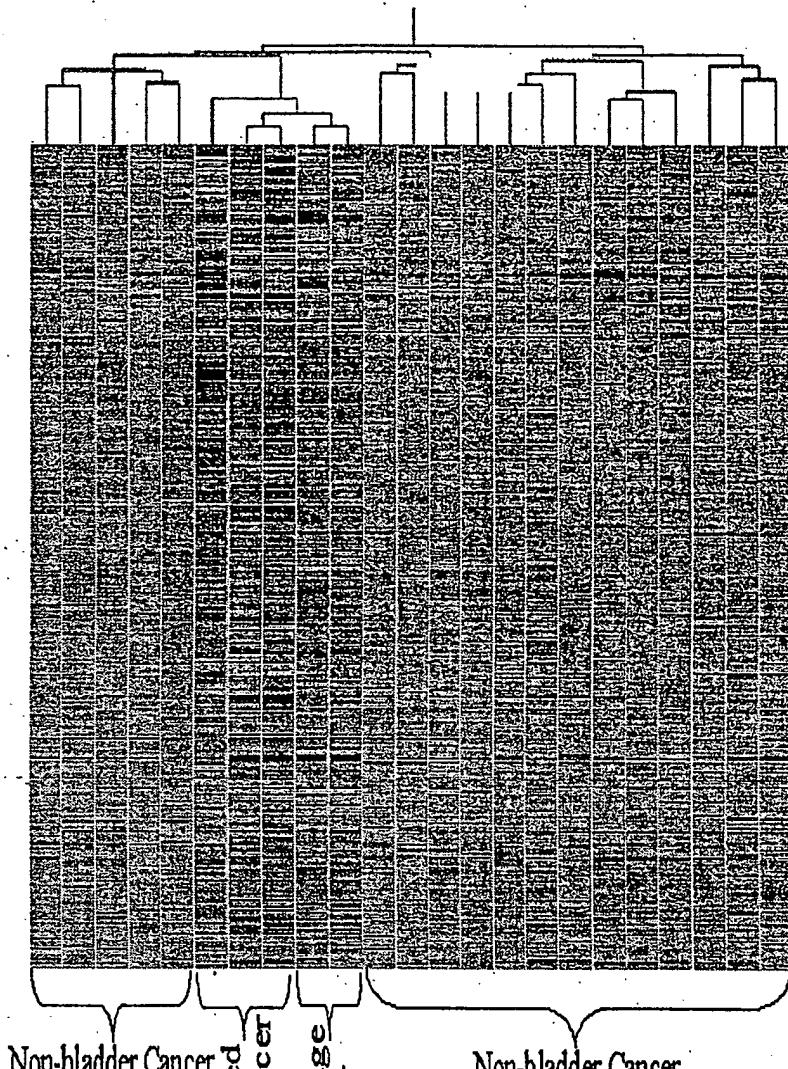
Bladder Cancer: 5

Non-bladder Cancer: 18

Differentially Expressed Genes ($p < 0.05$): 4,228

Figure 18

Bladder
Cancer



Non-bladder Cancer Advanced Stage Cancer Early Stage Cancer Non-bladder Cancer

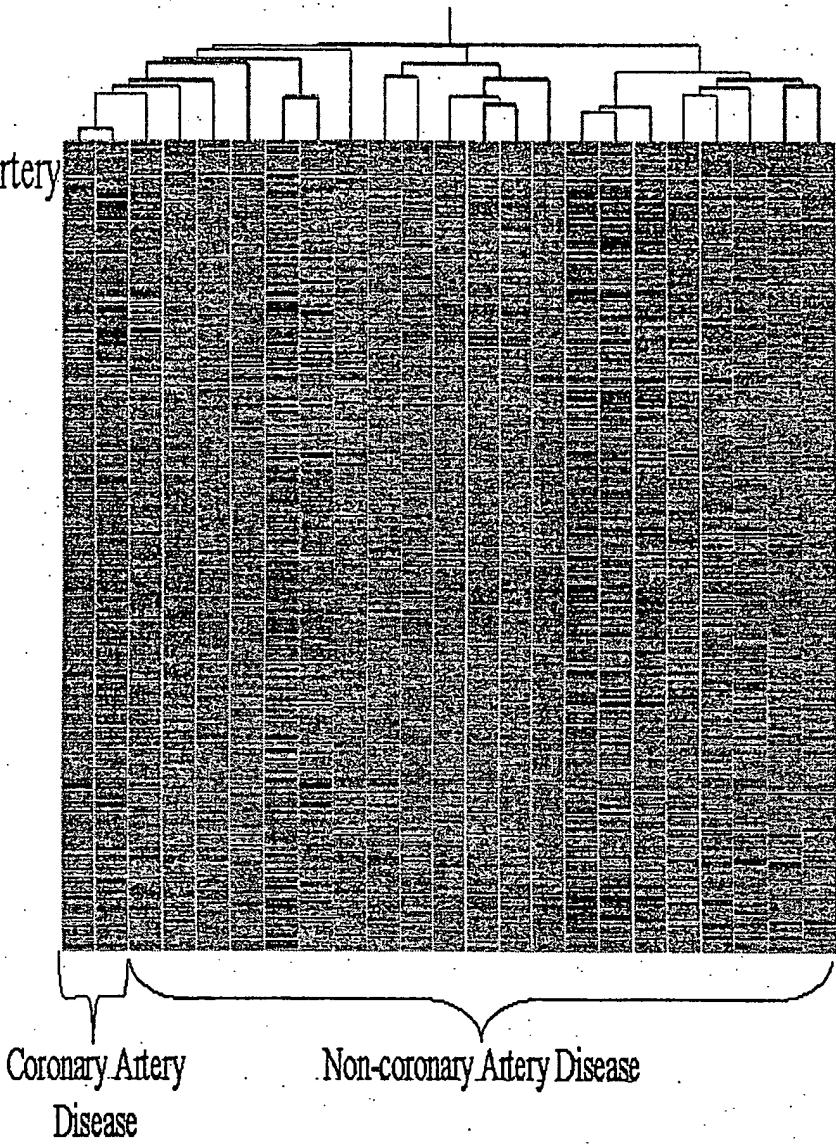
Bladder Cancer: 3 advanced stage, 2 early stage

Non-bladder Cancer: 18

Differentially Expressed Genes ($p < 0.05$): 3,518

Figure 19.

Coronary Artery
Disease



Coronary Artery
Disease

Non-coronary Artery Disease

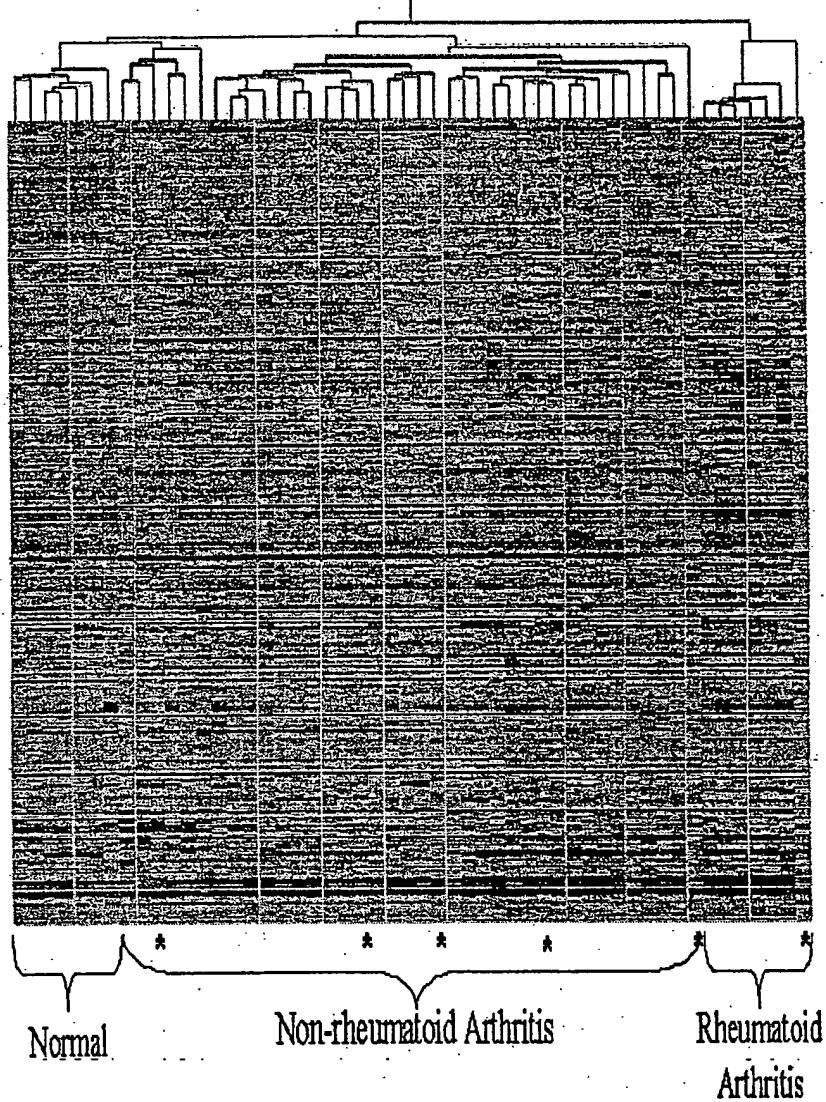
Coronary Artery Disease: 2

Non-coronary Artery Disease: 21

Differentially Expressed Genes ($p < 0.05$): 967

Figure 20

Rheumatoid
Arthritis



Rheumatoid Arthritis: 6

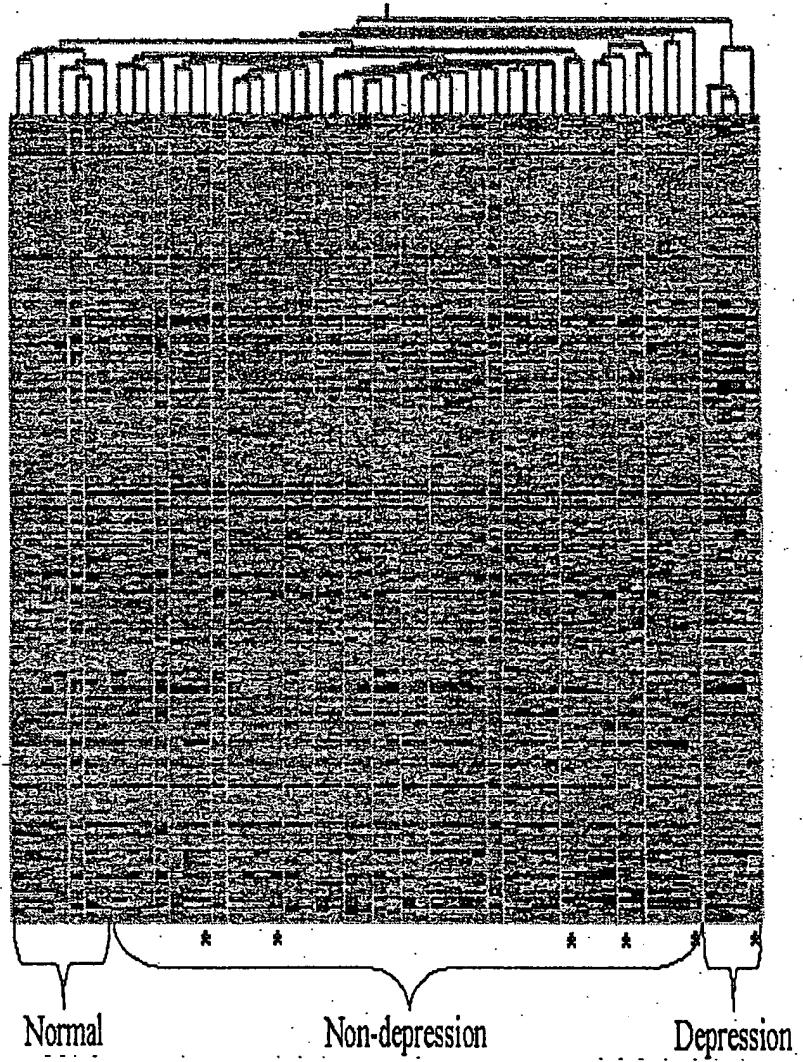
Non-rheumatoid Arthritis: 34

Normal: 12

Differentially Expressed Genes ($p < 0.05$): 2,068

Figure 21

Depression



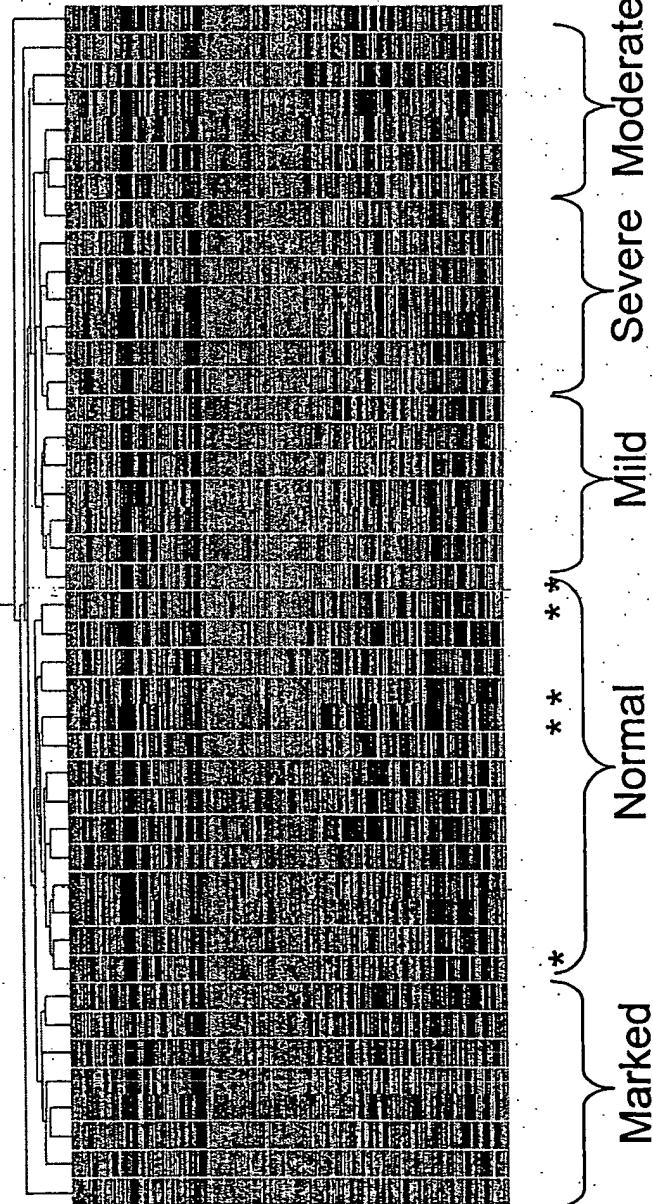
Depression: 3

Non-depression: 37

Normal: 12

Differentially Expressed Genes ($p < 0.05$): 941

Figure 22
Osteoarthritis



Osteoarthritis: 9 mild, 8 moderate, 8 marked, 9 severe

Normal: 9

Differentially Expressed Genes ($p < 0.05$): 300

Figure 23 RT-PCR of overexpressed genes in CAD peripheral blood cells identified using microarray experiments, including PBP, PF4 and F13A.

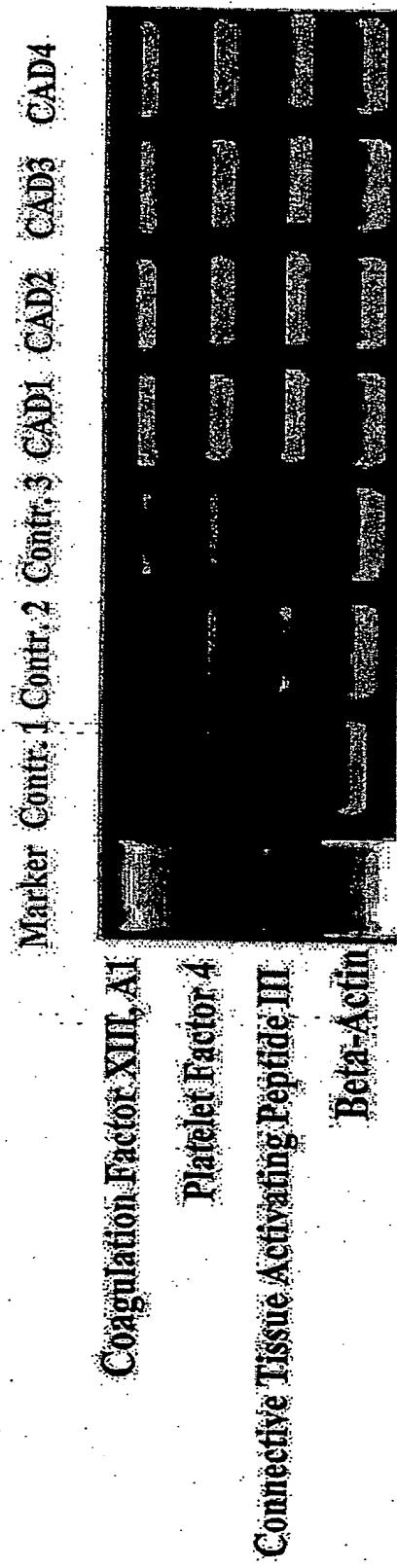


Figure 24

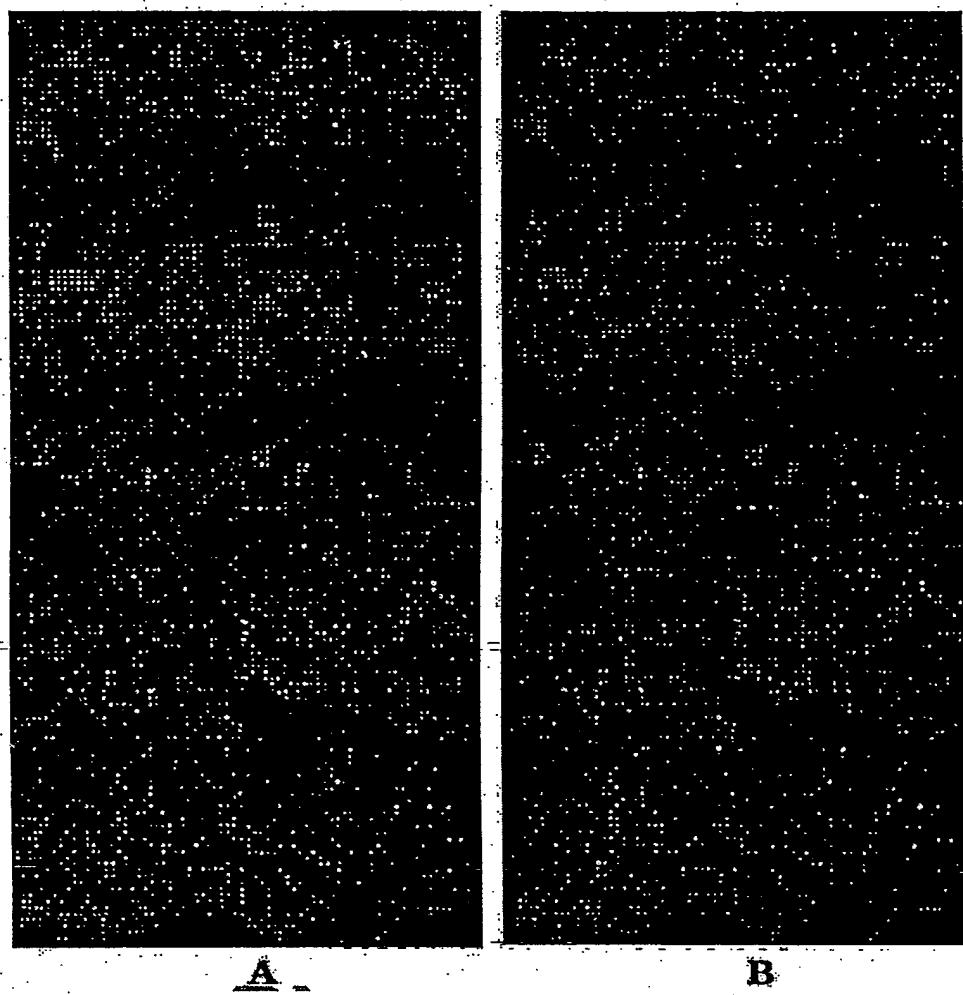


Figure 25

Liver Cancer

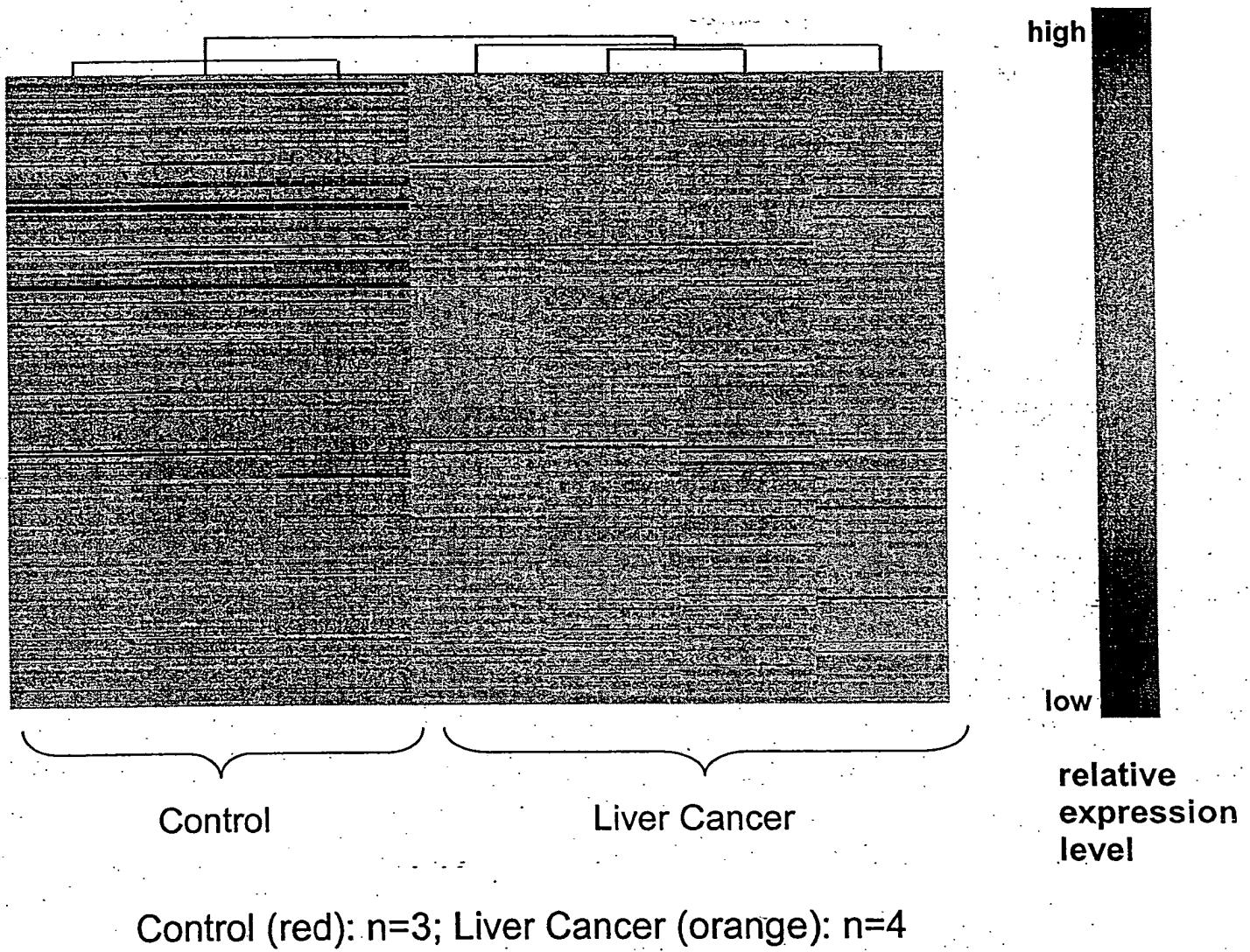
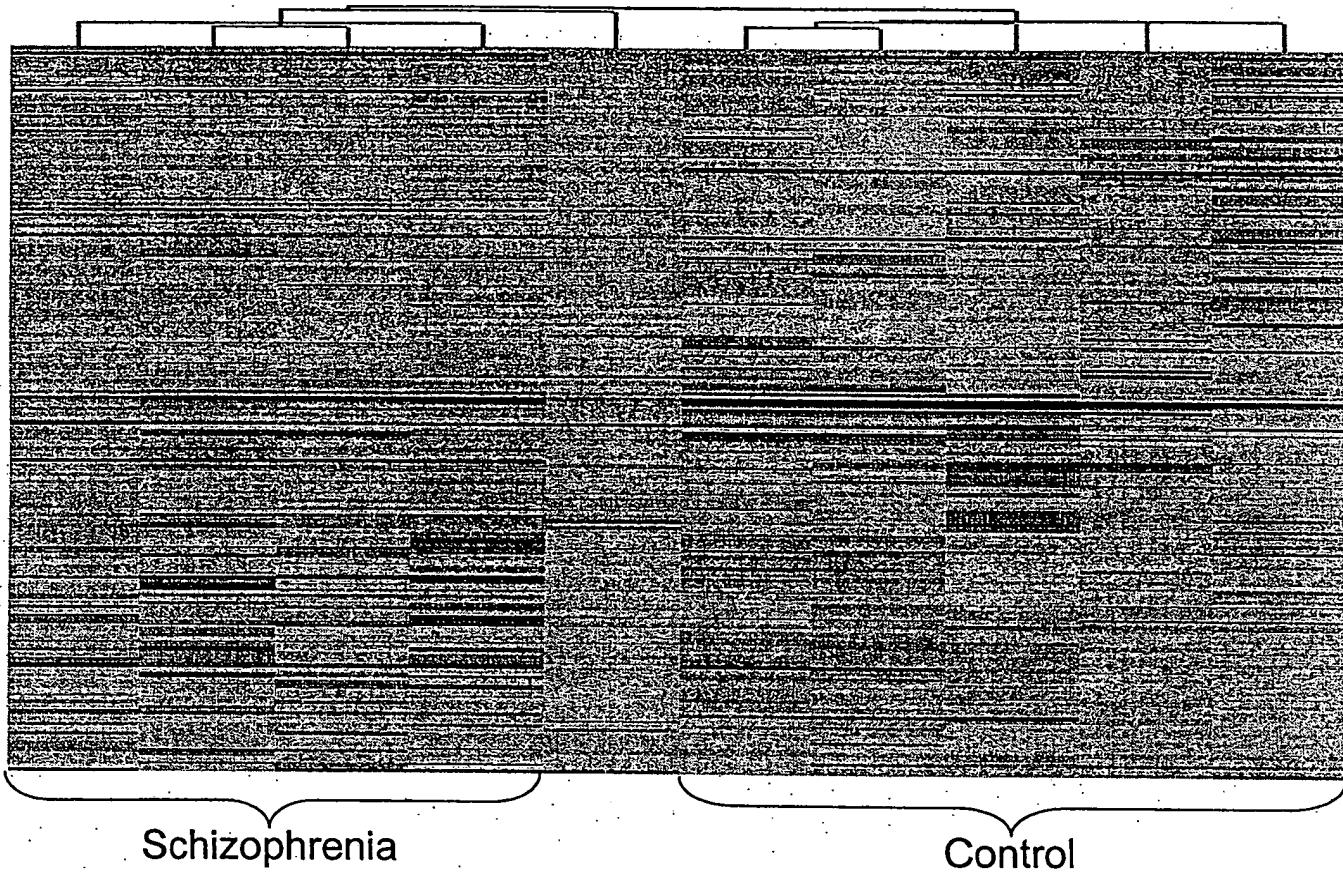


Figure 26

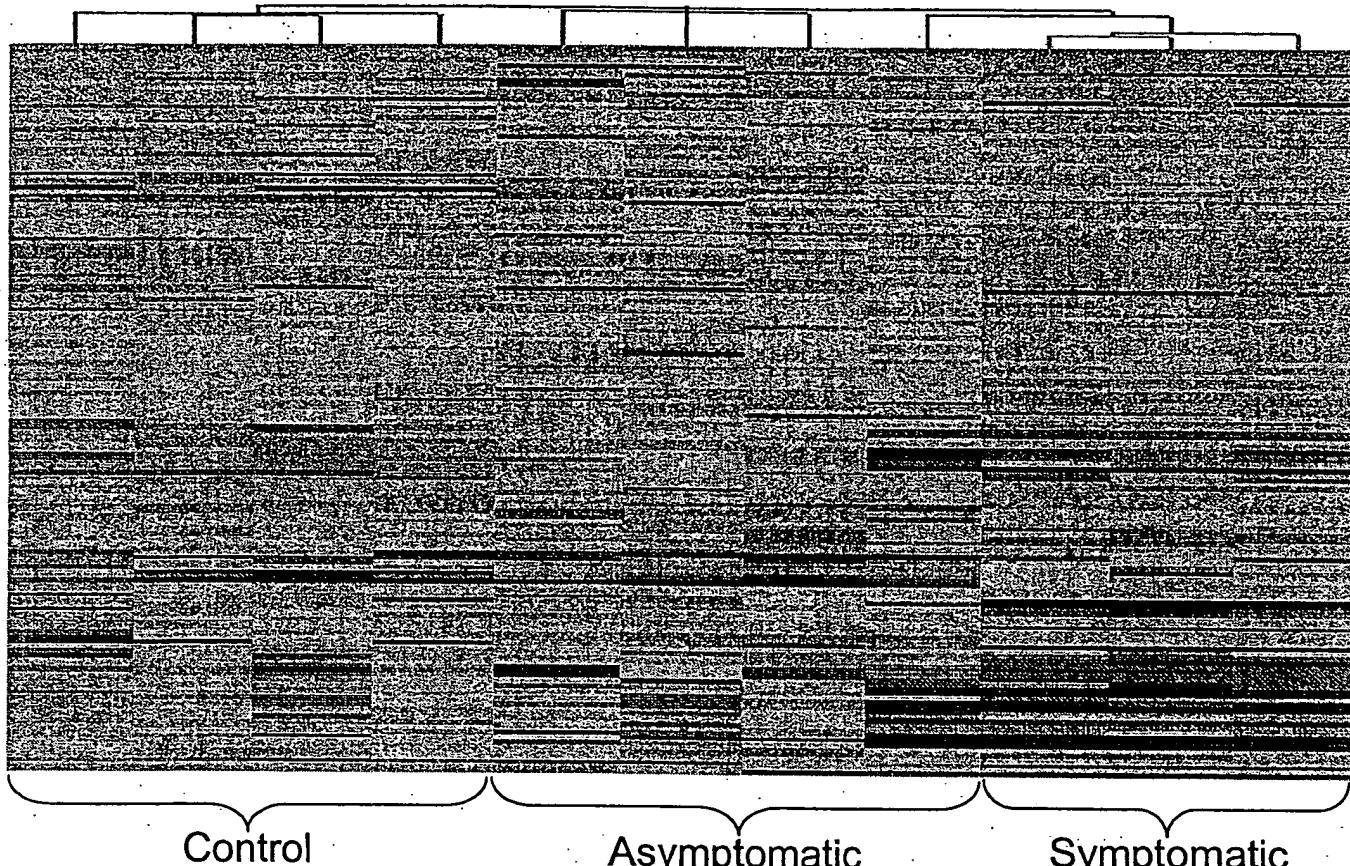
Schizophrenia



Control (red): n=6; Schizophrenia (orange): n=4

$p < 0.005$
252 genes

Figure 27
Chagas Disease

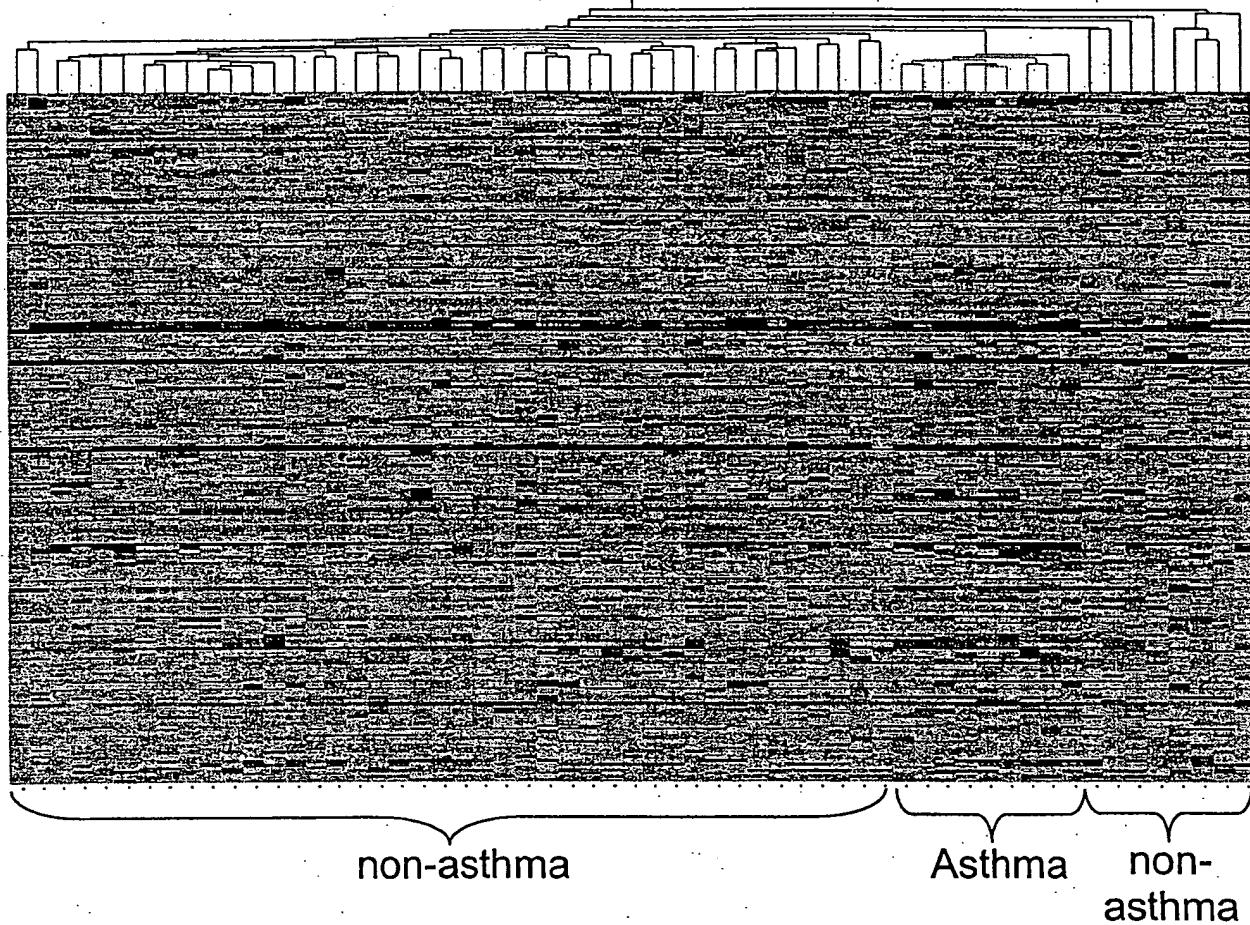


Control (orange): n=4; Chagas' asympt. (red): n=4;
Chagas' sympt. (yellow): n=3

p<0.01
155 genes

Figure 28

Asthma



Asthma: n=9 Non-asthma: n=50

$p < 0.05$
219 genes

Figure 29

Intersecting
Genes
(Table 3Q)

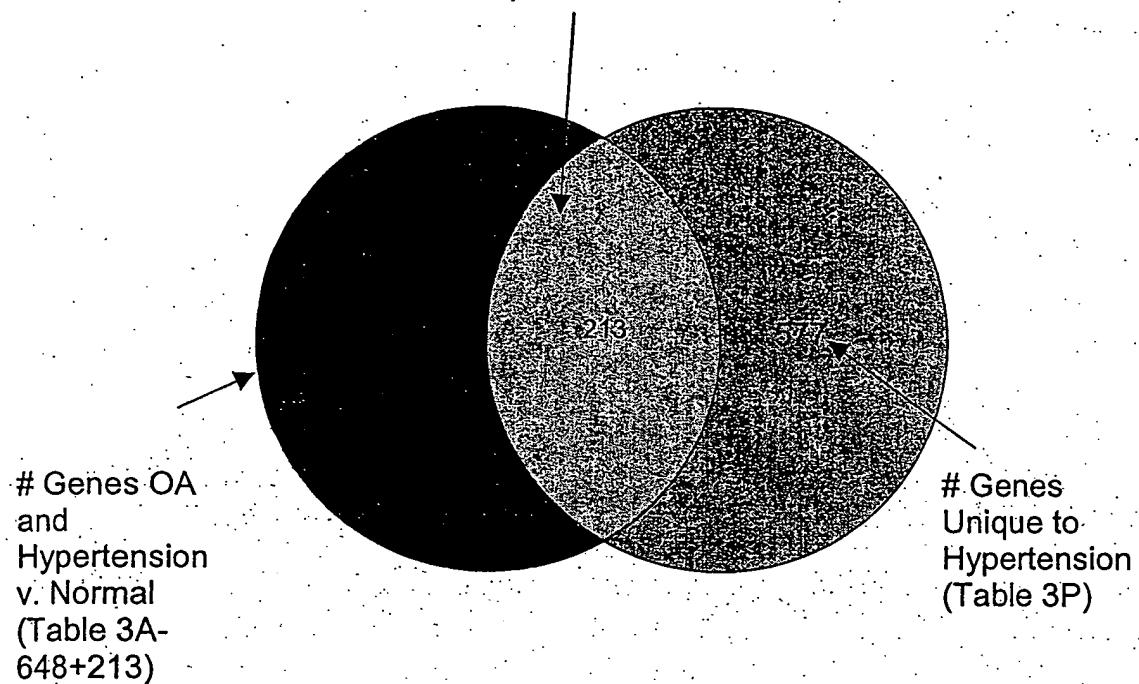


Figure 30

Intersecting
Genes
(Table 3S)

Genes OA
and Obesity
v. Normal
(Table 3B)

Genes
Unique to
Obesity
(Table 3R)

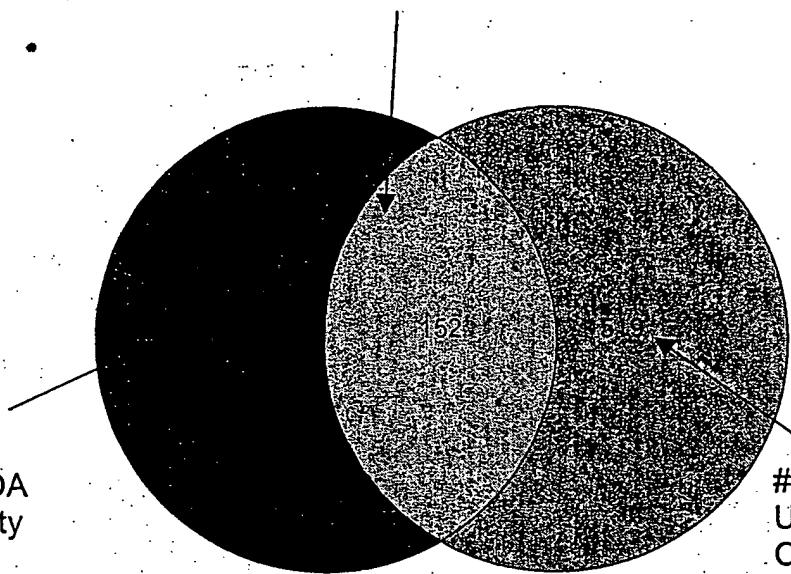


Figure 31

Intersecting
Genes
(Table 3U)

Genes OA
and Allergies
v. Normal
(Table 3C)

Genes
Unique to
Allergies
(Table 3T)

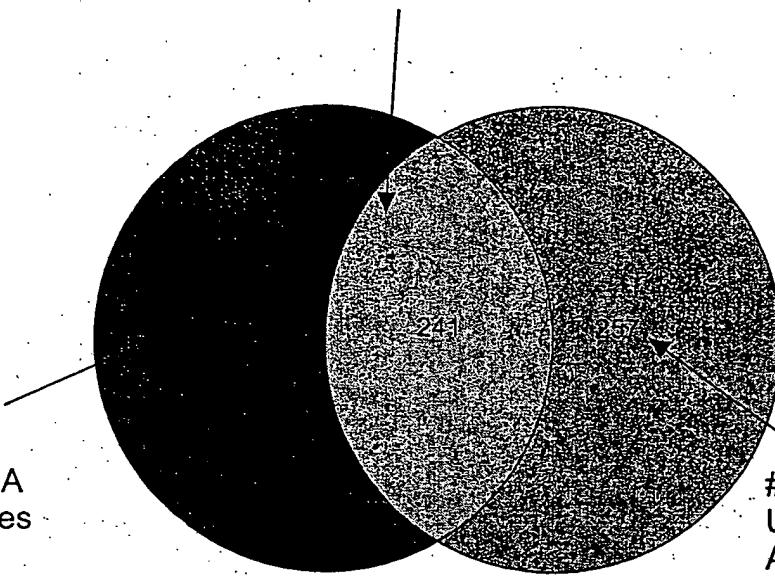


Figure 32

Intersecting
Genes
(Table 3W)

Genes OA
and Systemic
Steroids
v. Normal
(Table 3D)

Genes
Unique to
Systemic
Steroids
(Table 3V)

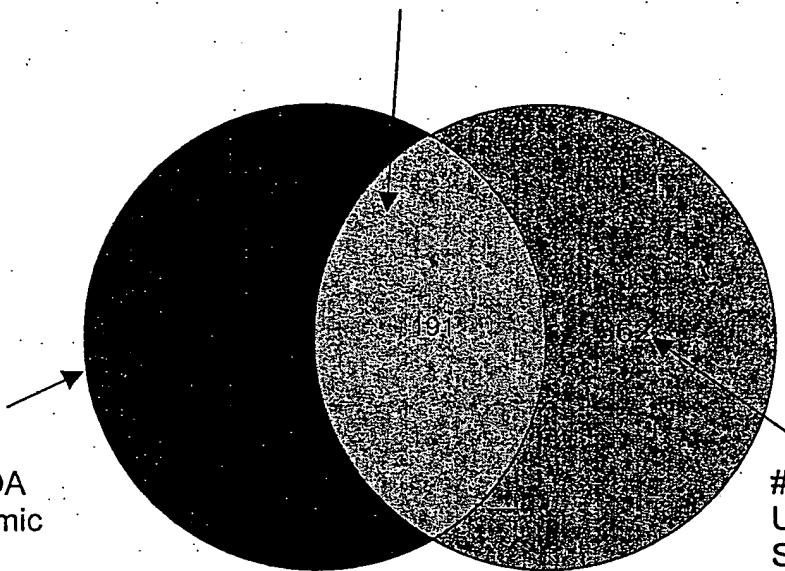
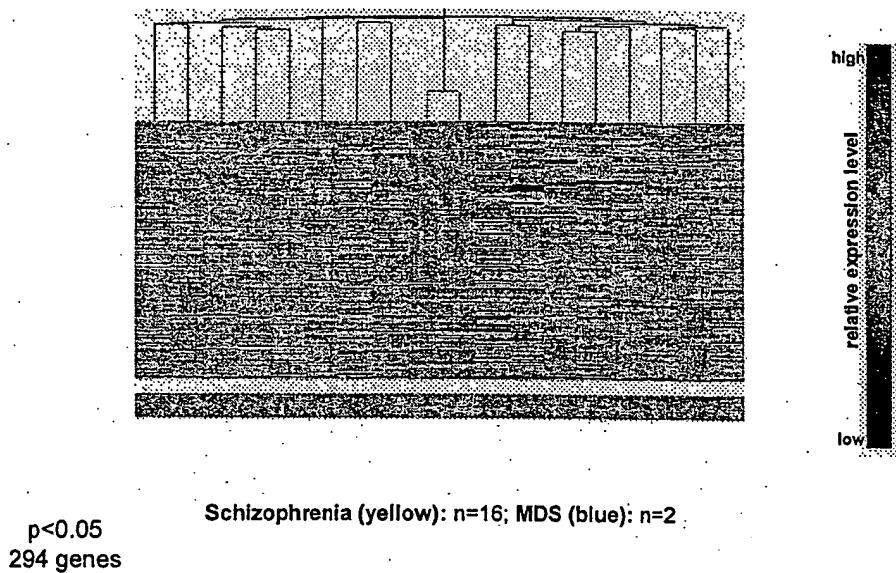


Figure 33

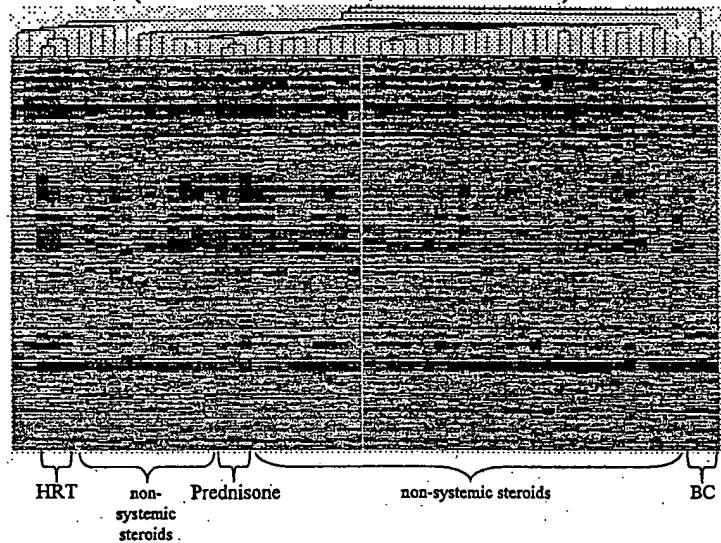
Schizophrenia, Batch 2 vs. MDS



MDS = Manic Depression Syndrome

Figure 34

OA Blood Samples Co-morbidities Study: Systemic Steroid Groups
(n=59: mild OA blood-29, severe OA blood-30)



Systemic Steroids (n=9): 3 prednisone, 3 birth control, 3 hormone replacement therapy

Non-systemic steroids: 50

Differentially Expressed Genes ($p < 0.05$): 396

HRT = hormone replacement therapy; BC = birth control